

## MULTISTAGE DIGITAL CROSS CONNECT WITH SYNCHRONIZED CONFIGURATION SWITCHING

### ABSTRACT OF THE DISCLOSURE

5 A digital cross connect comprises plural switching stages. Each stage has plural  
switches which receive plural frames of time multiplexed input data and which switch  
the data in time and space. Configurations of the switches change in frame  
synchronization at the start of a synchronized data frame. Both the configuration data  
and a frame clock may be propagated through the plural stages from a master switch.  
First and last stages of the digital cross connect may be implemented on common chips  
10 having two framing time bases. Data may be aligned to a global frame clock and  
interchanged using a single random access memory in a time slot interchanger. The  
write address to the random access memory is generated from a local frame counter  
keyed to the input data frame while a read address is transformed from a global frame  
counter.

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